

- [0299] 20. The pharmaceutical composition of any of paragraphs 17-19, wherein the fibers have a width of 10-500 nm as detected by scanning electron microscopy.
- [0300] 21. The pharmaceutical composition of any of paragraphs 17-19, wherein the fibers have a width of 25-250 nm as detected by scanning electron microscopy.
- [0301] 22. The pharmaceutical composition of any of paragraphs 17-19, wherein the fibers have a width of 50-100 nm as detected by scanning electron microscopy.
- [0302] 23. The pharmaceutical composition of paragraph 1, wherein the polymer fiber is poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine.
- [0303] 24. The pharmaceutical composition of paragraph 23, wherein the poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine is microalgal poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine.
- [0304] 25. The pharmaceutical composition of paragraph 24, wherein the microalgal poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine is from the *Coscinodiscus* genus, the *Cyclotella* genus, or the *Thalassiosira* genus of microalgae.
- [0305] 26. The pharmaceutical composition of paragraph 25, wherein the microalgal poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine is from the *Thalassiosira* genus of microalgae and wherein the species of *Thalassiosira* is *fluvialis* or *weissflogii*.
- [0306] 27. The pharmaceutical composition of paragraph 1, wherein the fibers are formulated as a gel, solid, liquid, sponge, foam, spray, emulsion, suspension, or solution, mat, string, gauze, suture, bead, microsphere, or microfibril.
- [0307] 28. The pharmaceutical composition of paragraph 1, wherein the composition comprises poly- $\beta$ -1 $\rightarrow$ 4-N-acetylglucosamine fibers and platelets formulated as a suture.
- [0308] 29. The pharmaceutical composition of paragraph 1, wherein the ratio of the volume of cells isolated to the volume of polymer fiber suspension is 1:1.
- [0309] 30. The pharmaceutical composition of paragraph 1, further comprising a divalent cation.
- [0310] 31. The pharmaceutical composition of paragraph 30, wherein the divalent cation is magnesium.
- [0311] 32. The pharmaceutical composition of paragraph 30, wherein the divalent cation is calcium.
- [0312] 33. The pharmaceutical composition of paragraph 32, wherein the calcium is 10% CaCl<sub>2</sub> solution.
- [0313] 34. The pharmaceutical composition of paragraph 1, wherein the population of cells have been isolated mammal for at least 1, 2, 3 or 4 days.